

**FIG. 1**

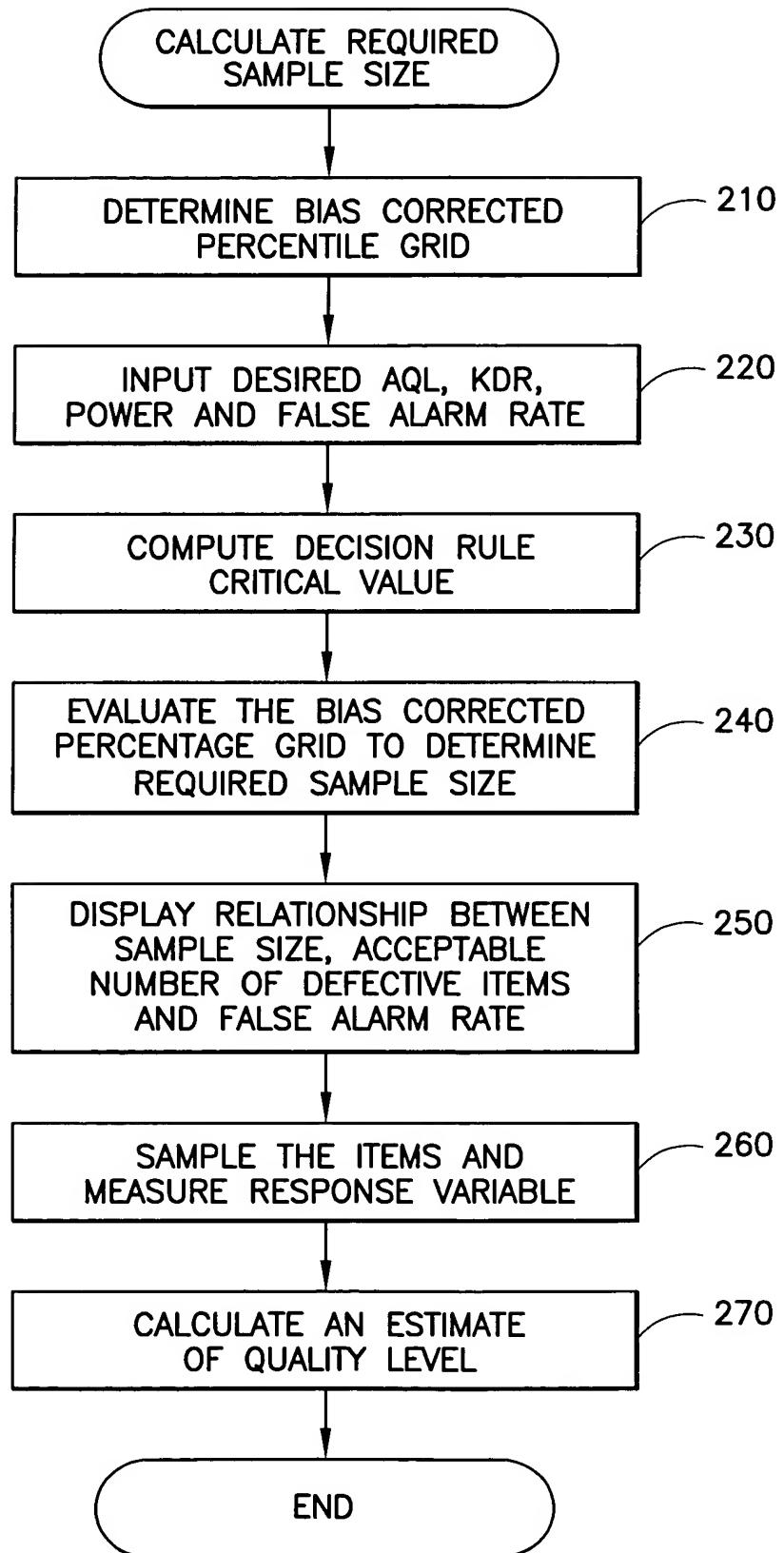


FIG.2

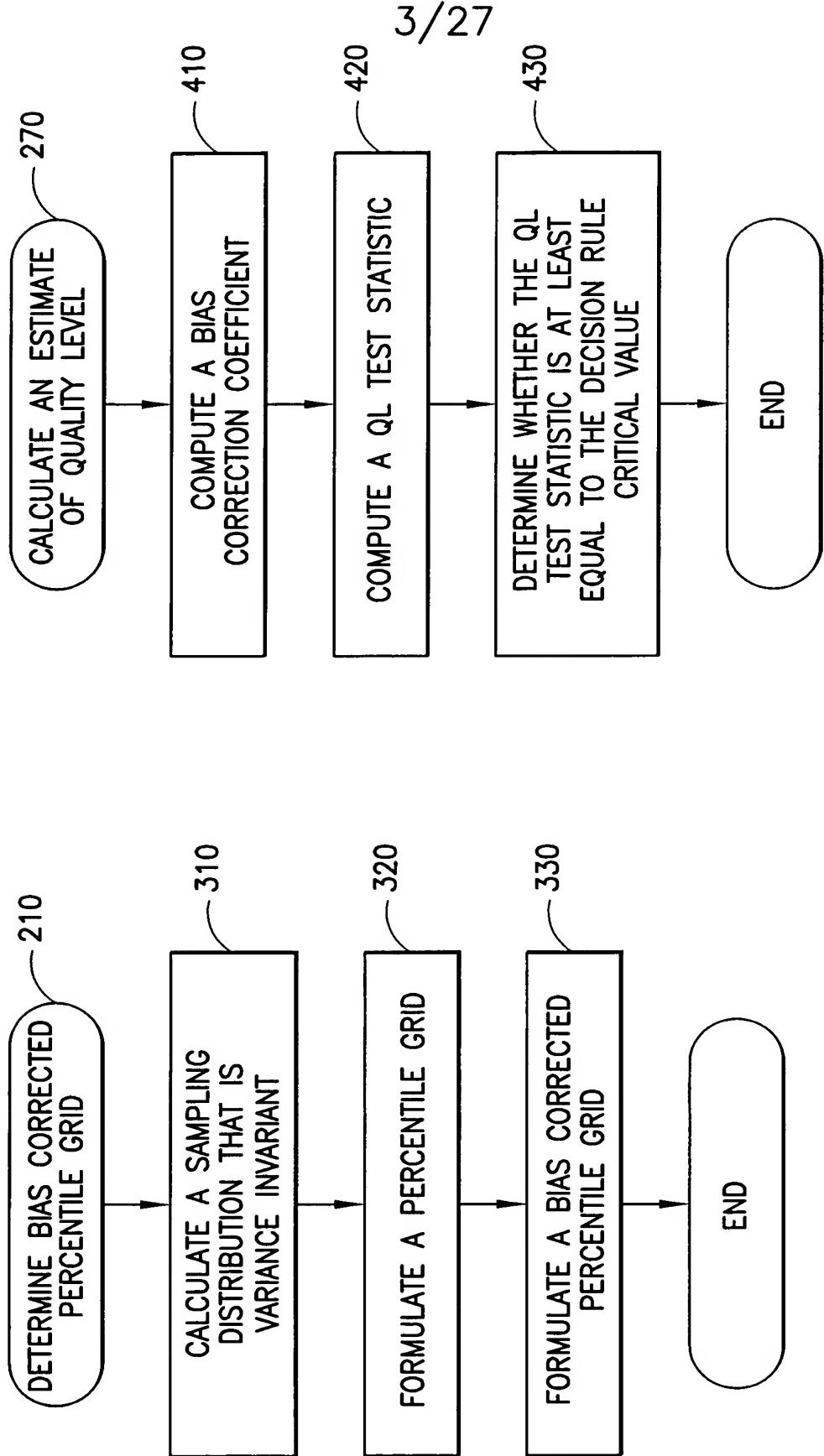


FIG.3

FIG.4

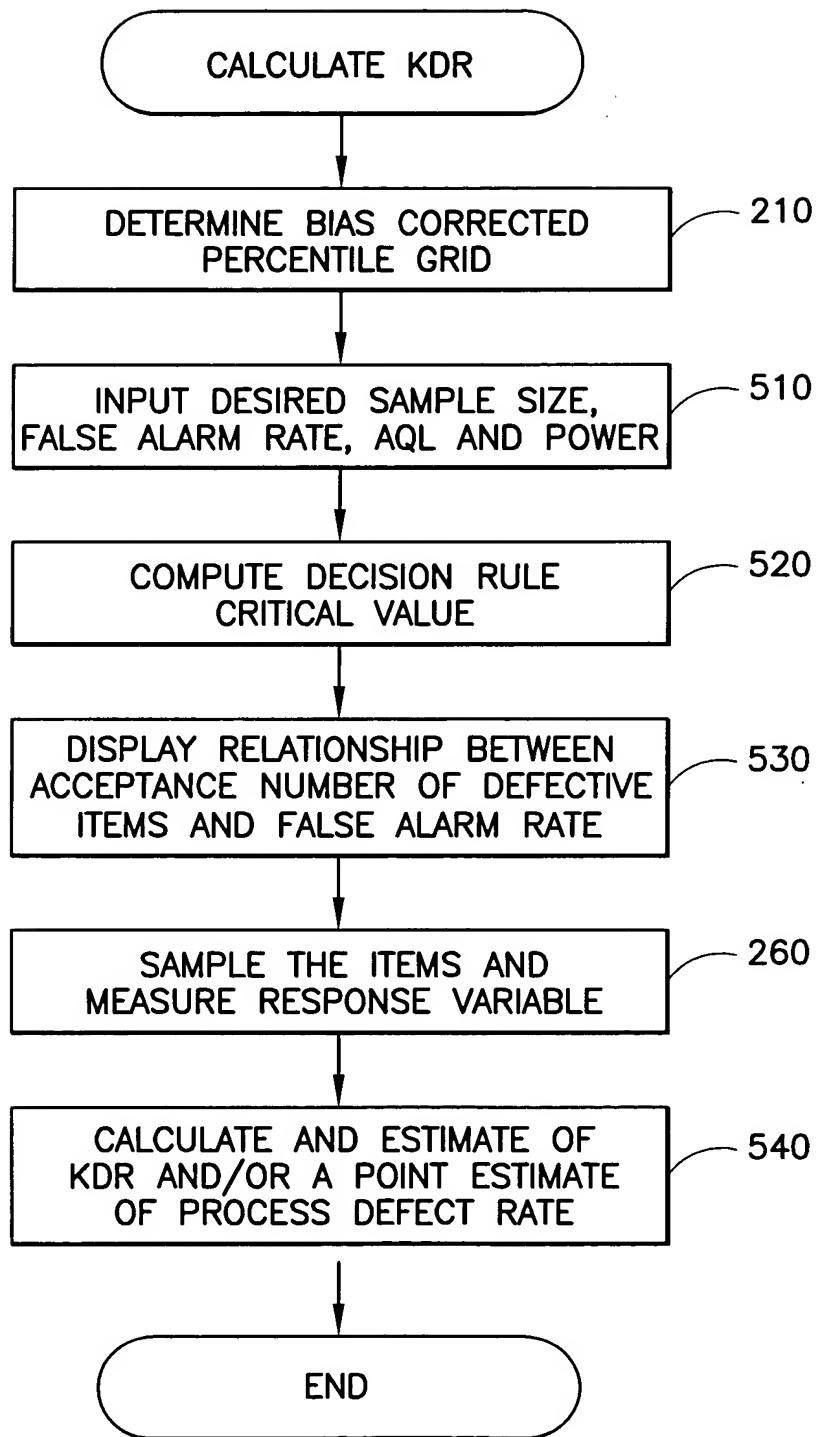


FIG.5

AQL=0.10

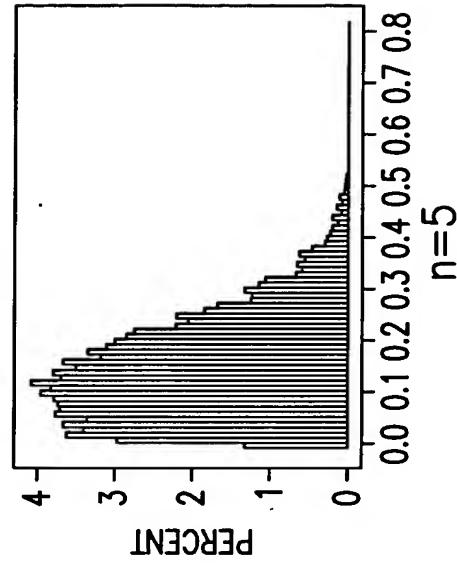


FIG. 6B

AQL=0.01

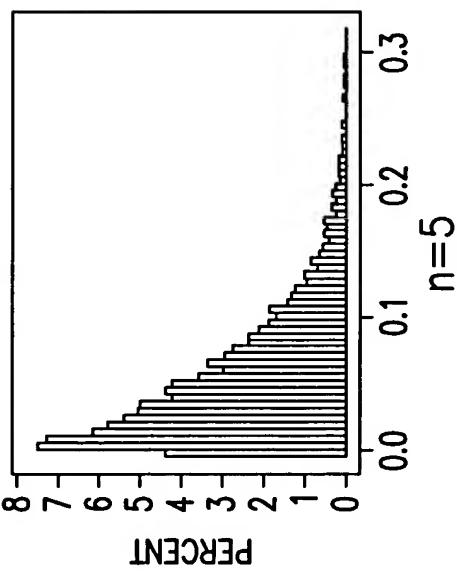
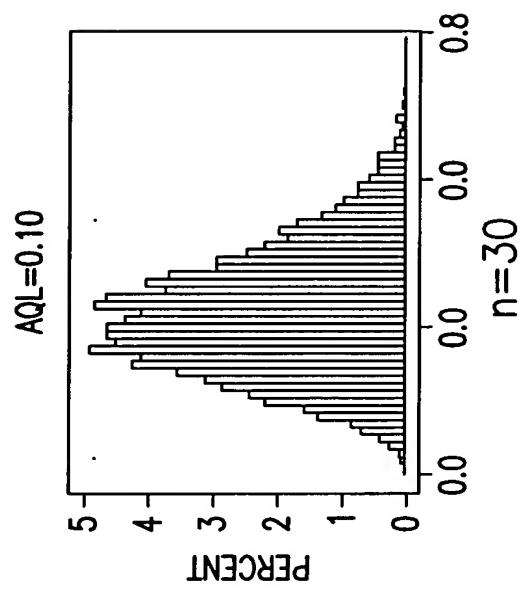


FIG. 6A



AQL=0.10

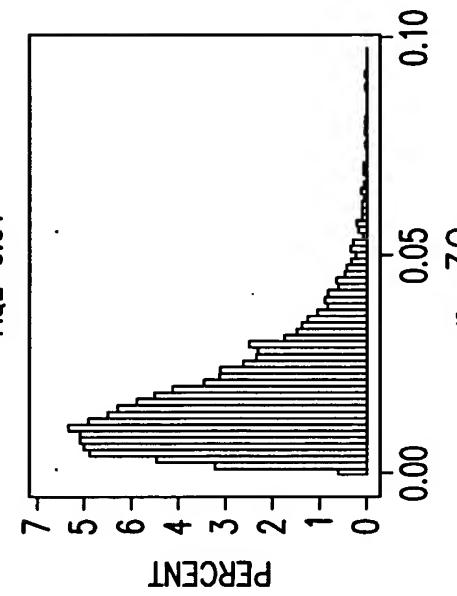
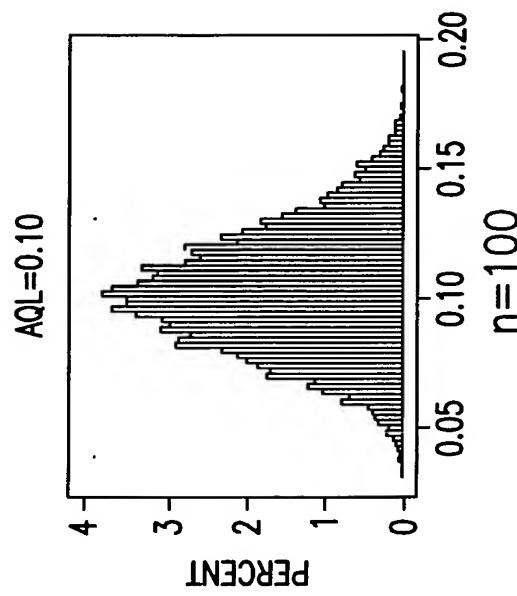
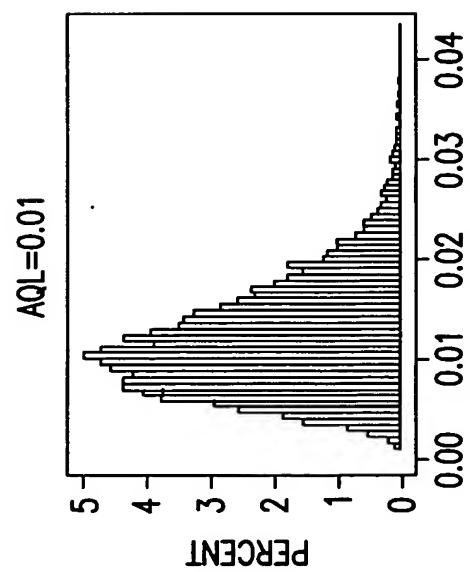


FIG. 6C

FIG. 6D



**FIG. 6F**



**FIG. 6E**

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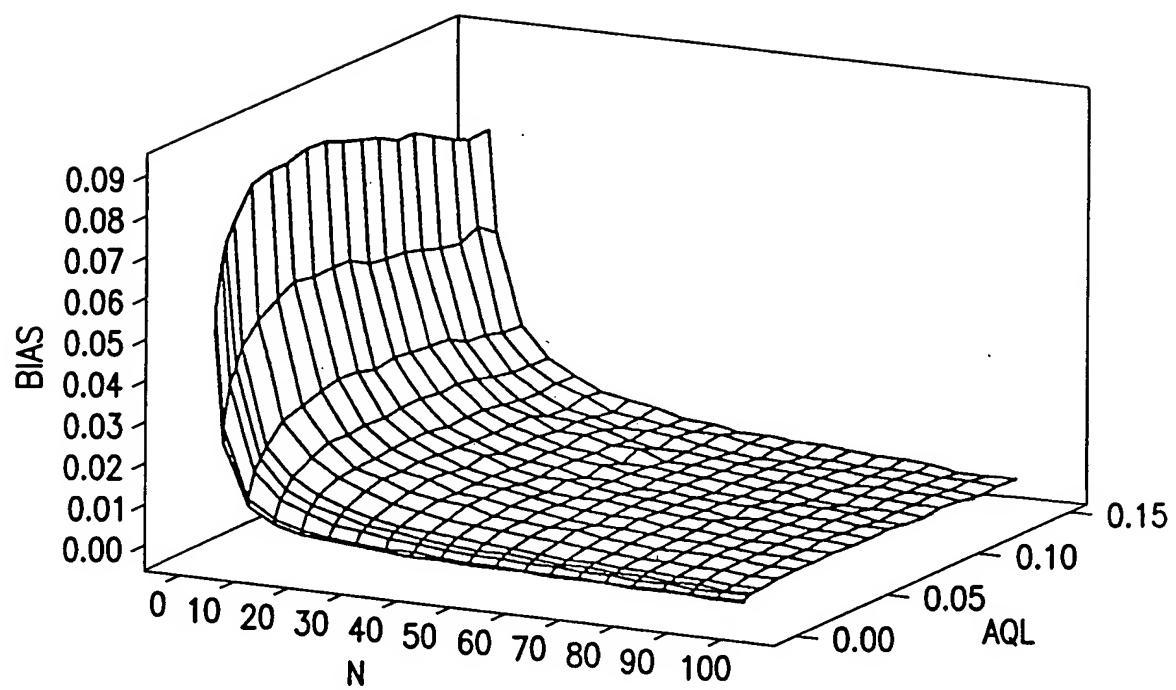


FIG.7

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BIAS CURVE, AQL=001

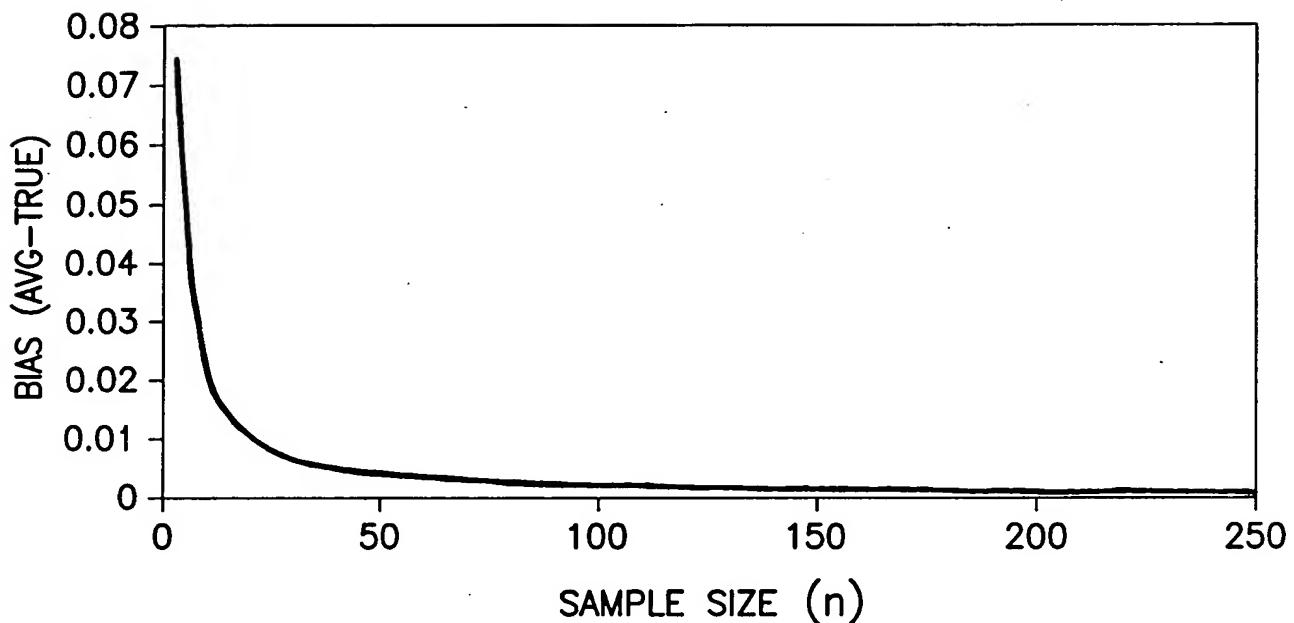


FIG.8A

BIAS CURVE, AQL=0.10

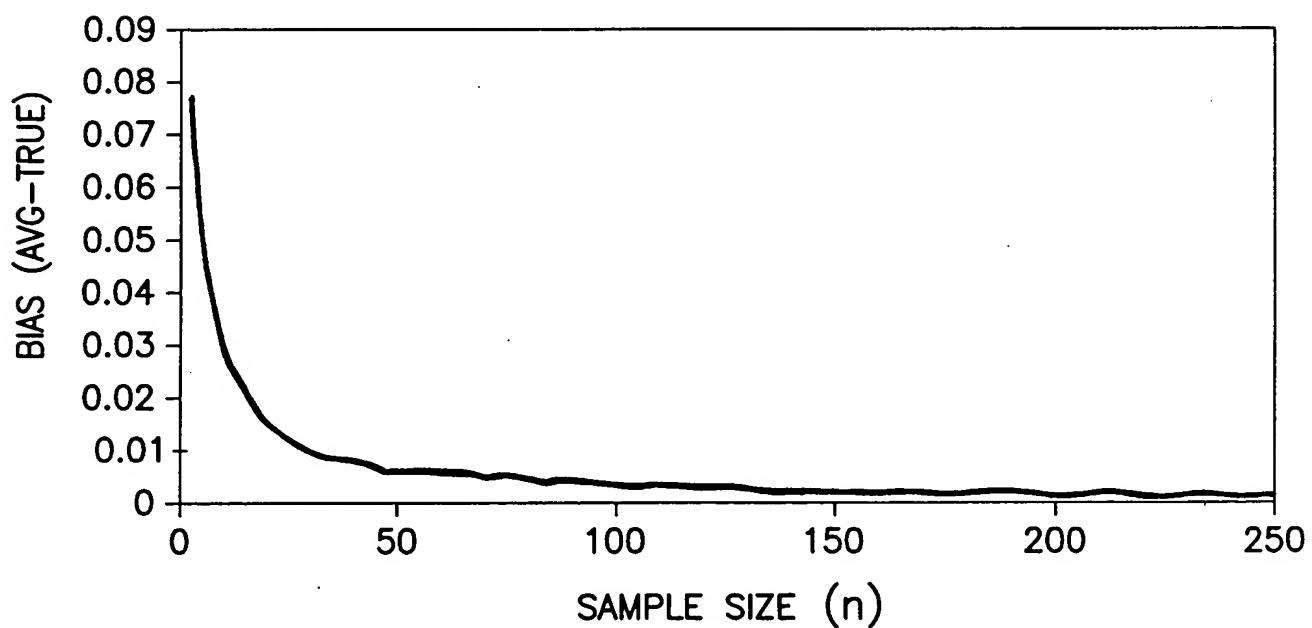
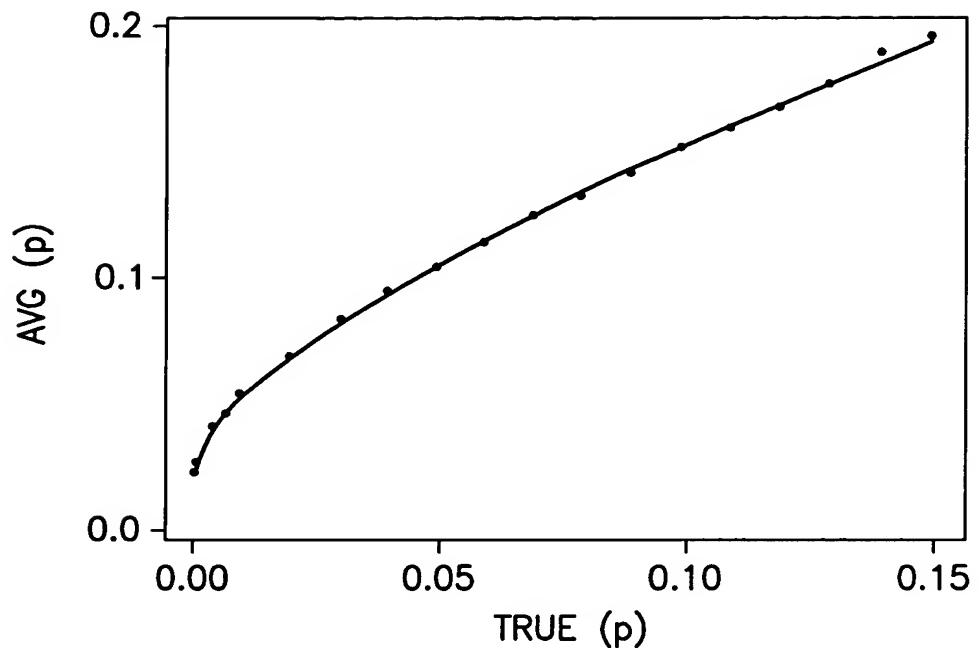
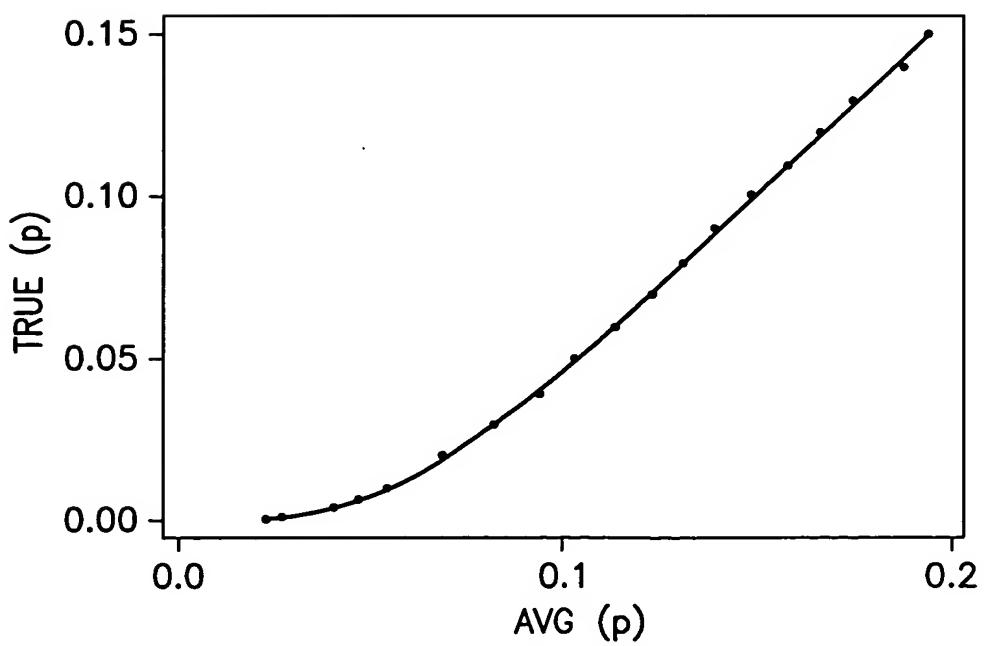


FIG.8B

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**FIG.9A**



**FIG.9B**

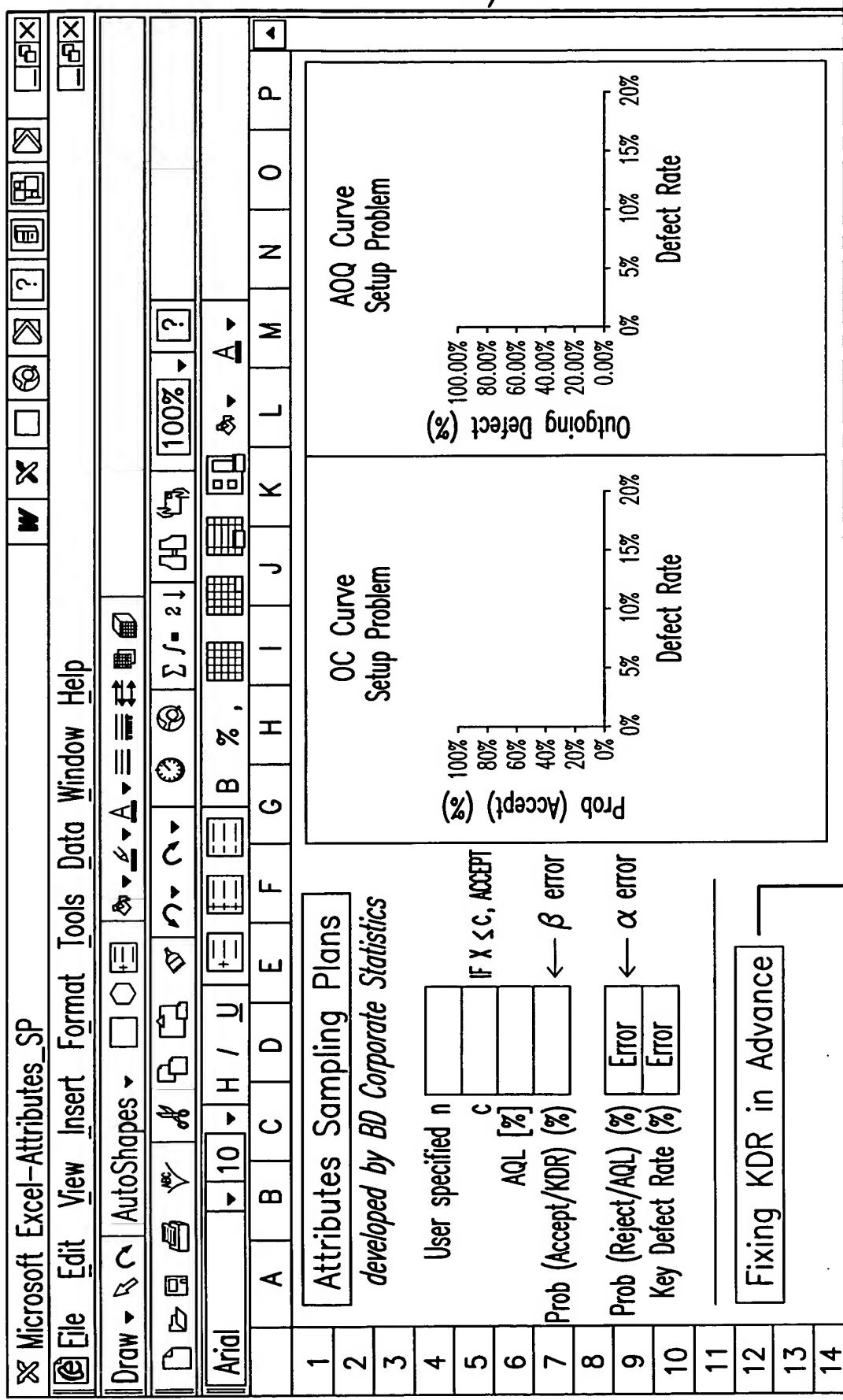


FIG. 10A

FIG. 10B

FIG. 10A

15      Desired KDR (%)   
 16      Required n   
 17      Error  
 18  
 19      under these conditions  
 20       $c$       Error  
 21      AQL [%]      Error  
 22      Target  $\alpha$  (%)      Error  
 23       $\beta$  error (%)      Error  
 24      True  $\alpha$  (%)      Error  
 25  
 26      USE F9 KEY TO RECALCULATE SHEET  
 27      Plot Controls  
 28  
 29      OC & AOQ Curves  
 30      Max Rate (%)   
 31      Maintaining the Key Defect Rate  
 32       Max c      Target  $\alpha$  (%)   
 33  
 34      Use Ctrl O to Copy the 3 charts  
 35  
 36      Attributes /   
 Ready

**Maintaining the Key Defect Rate**

SETUP PROBLEM

Acceptable Number of Defectives,  $c$

Type I Error,  $\alpha$  (%)

FIG. 10B

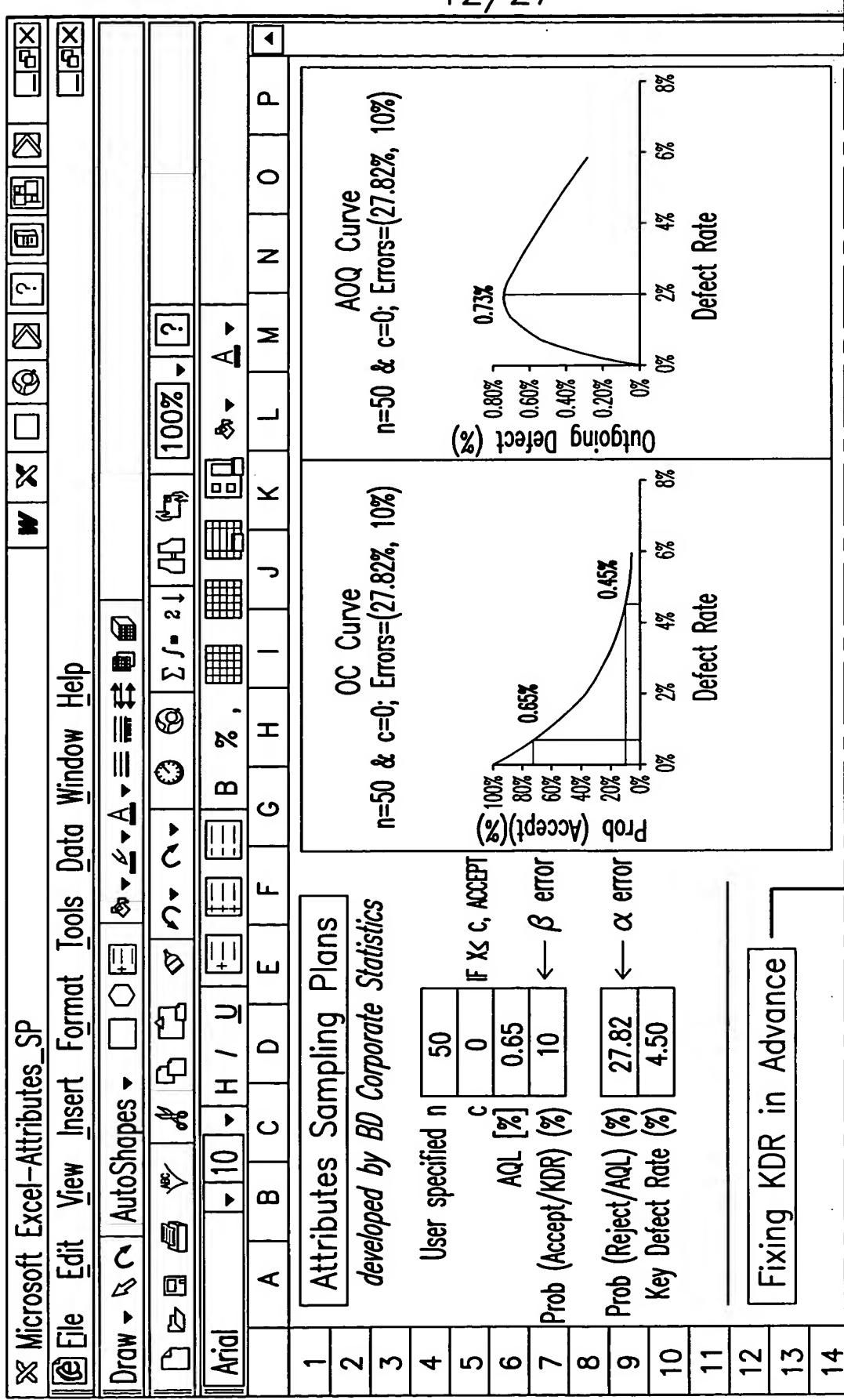


FIG. 11A

FIG. 11A

FIG. 11B

15	Desired KDR (%)	<input type="text"/>
16	Required n	<input type="text"/> Error
17	under these conditions	
18		
19		
20	AQL [%]	0
21	c	0.65
22	Target $\alpha$ (%)	<input type="text"/> Error
23	True $\beta$ error (%)	<input type="text"/> Error
24	True $\alpha$ (%)	<input type="text"/> Error
25	OC & AOQ Curves	
26	USE F9 KEY TO RECALCULATE SHEET	
27	Plot Controls	
28		
29	Max Rate (%)	<input type="text"/> 6
30	Maintaining the Key Defect Rate	
31	<input type="text"/> Max c	<input type="text"/> Target $\alpha$ (%)
32		
33	Use Ctrl O to Copy the 3 charts	
34		
35		
36		
	Attributes	
	Ready	

Maintaining the Key Defect Rate

Type I Error,  $\alpha$ (%)

Acceptable Number of Defectives, c

SETUP PROBLEM

FIG. 11B

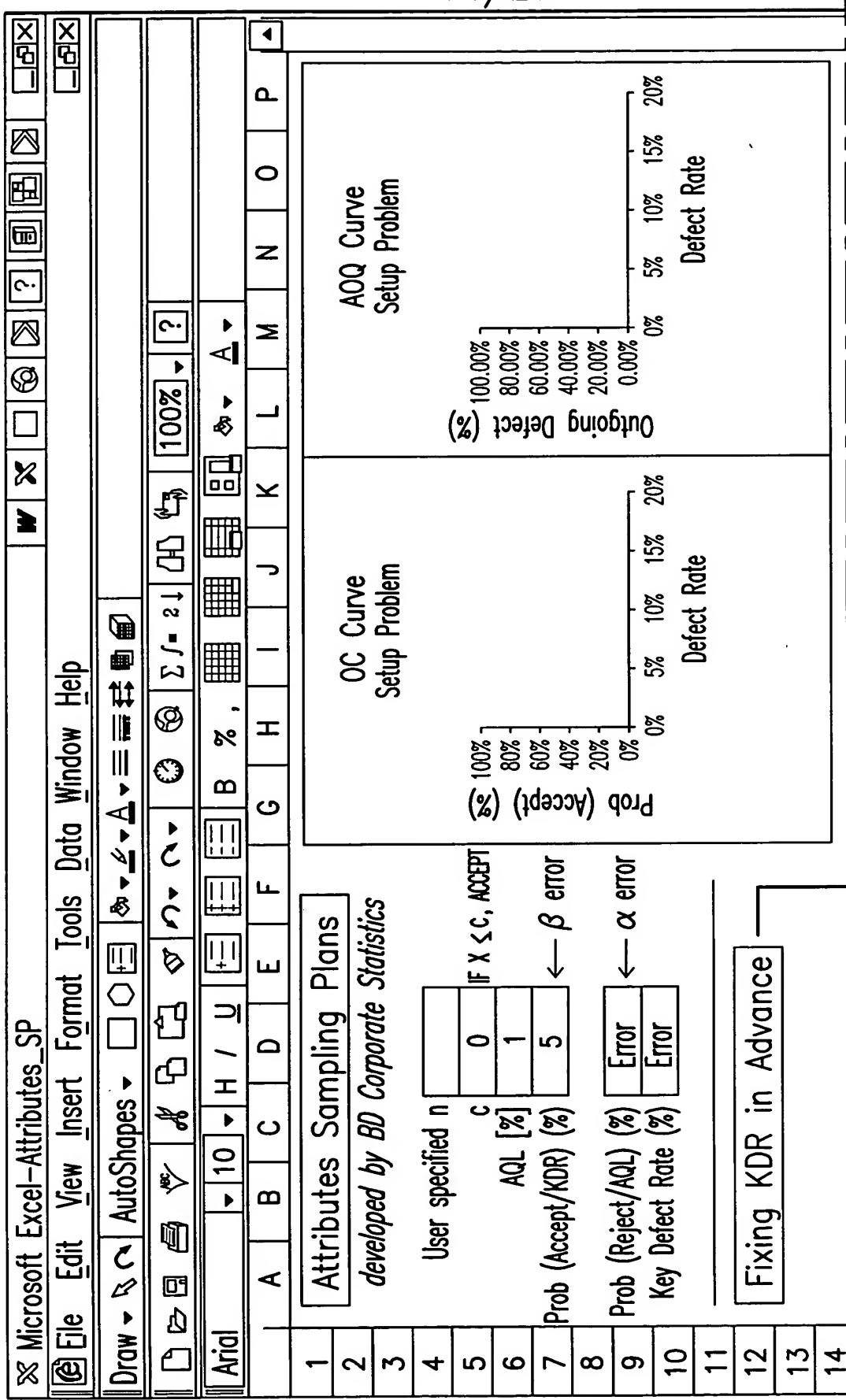


FIG. 12A

FIG. 12A

FIG. 12B

15  
16      Desired KDR (%)   
17      Required n   
18  
19      under these conditions  
20      

c	0
AQL [%]	1.00
Target $\alpha$ (%)	10.00
True $\beta$ error (%)	4.90
True $\alpha$ (%)	63.03

  
21        
22  
23  
24  
25  
26      USE F9 KEY TO RECALCULATE SHEET  
27      Plot Controls  
28      OC & A0Q Curves  
29      Max Rate (%)   
30      Maintaining the Key Defect Rate  
31       Max c      Target  $\alpha$  (%)   
32  
33      Use Ctr 0 to Copy the 3 charts  
34  
35  
36  
Ready

Maintaining the Key Defect Rate  
Target: KDR=3% with at least 95% power: AQL=1%

Recommendation:  
Type I Error is 10.15%  
at n=392 & c=6

Type I Error,  $\alpha$  (%)

Acceptable Number of Defectives, c

FIG. 12B

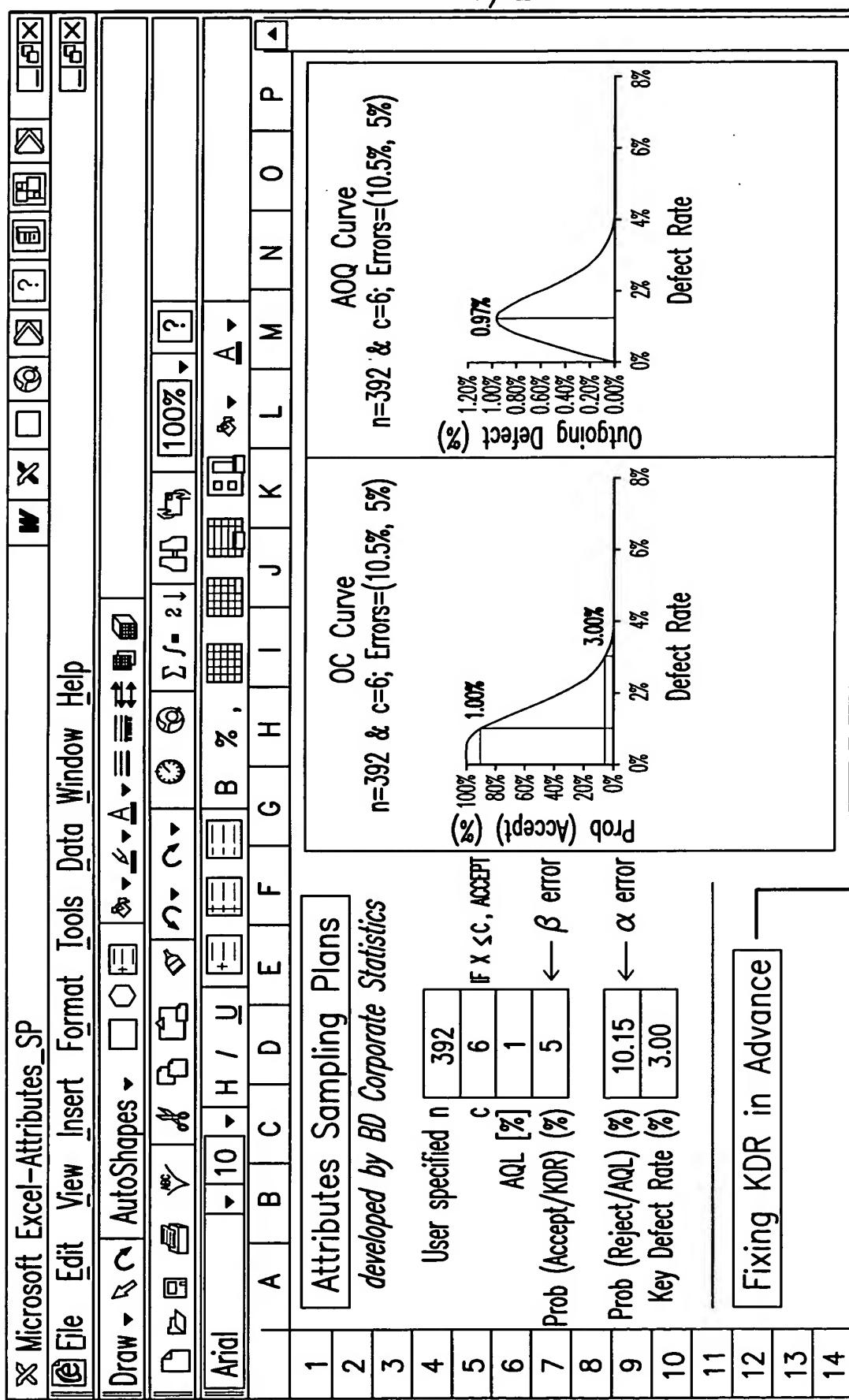


FIG. 13A

FIG. 13A

FIG. 13B

15      Desired KDR (%)   
 16      Required n   
 17      under these conditions

c	6
AQL [%]	1.00
Target $\alpha$ [%]	10.00
True $\beta$ error [%]	4.98
True $\alpha$ [%]	10.15

18      check  
 19      check

20      Maintaining the Key Defect Rate  
 21      Target: KDR=3% with at least 95% power: A0=1%  
 22      Recommendation:  
 23      Type I Error is 10.15%  
 24      at n=392 & c=6

25      Type I Error,  $\alpha$  (%)  
 26      99  
 27      167  
 28      208  
 29      267  
 30      303  
 31      348  
 32      (392)  
 33      436  
 34      478  
 35      521  
 36      562  
 37      604  
 38      645  
 39      686  
 40      726  
 41      766

20      Acceptable Number of Defectives, c

25      USE F9 KEY TO RECALCULATE SHEET  
 26      Plot Controls

27      0C & AOQ Curves  
 28      Max Rate (%)   
 29      Maintaining the Key Defect Rate  
 30      15      Max c      Target  $\alpha$  (%)   
 31      Use Ctrl 0 to Copy the 3 charts  
 32      Attributes /

33      Ready

FIG. 13B

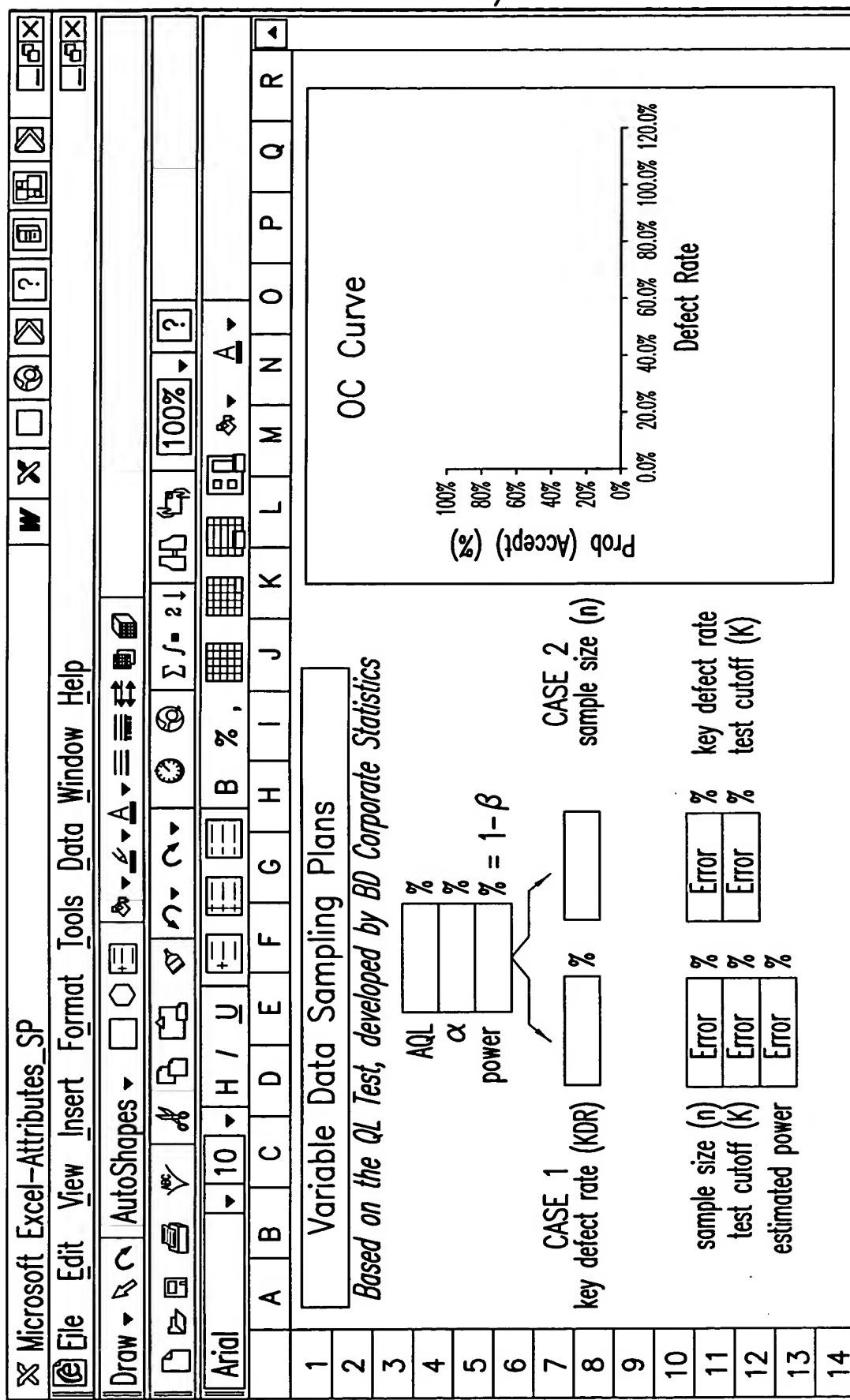


FIG. 14A

FIG. 14A

FIG. 14B



FIG. 14B

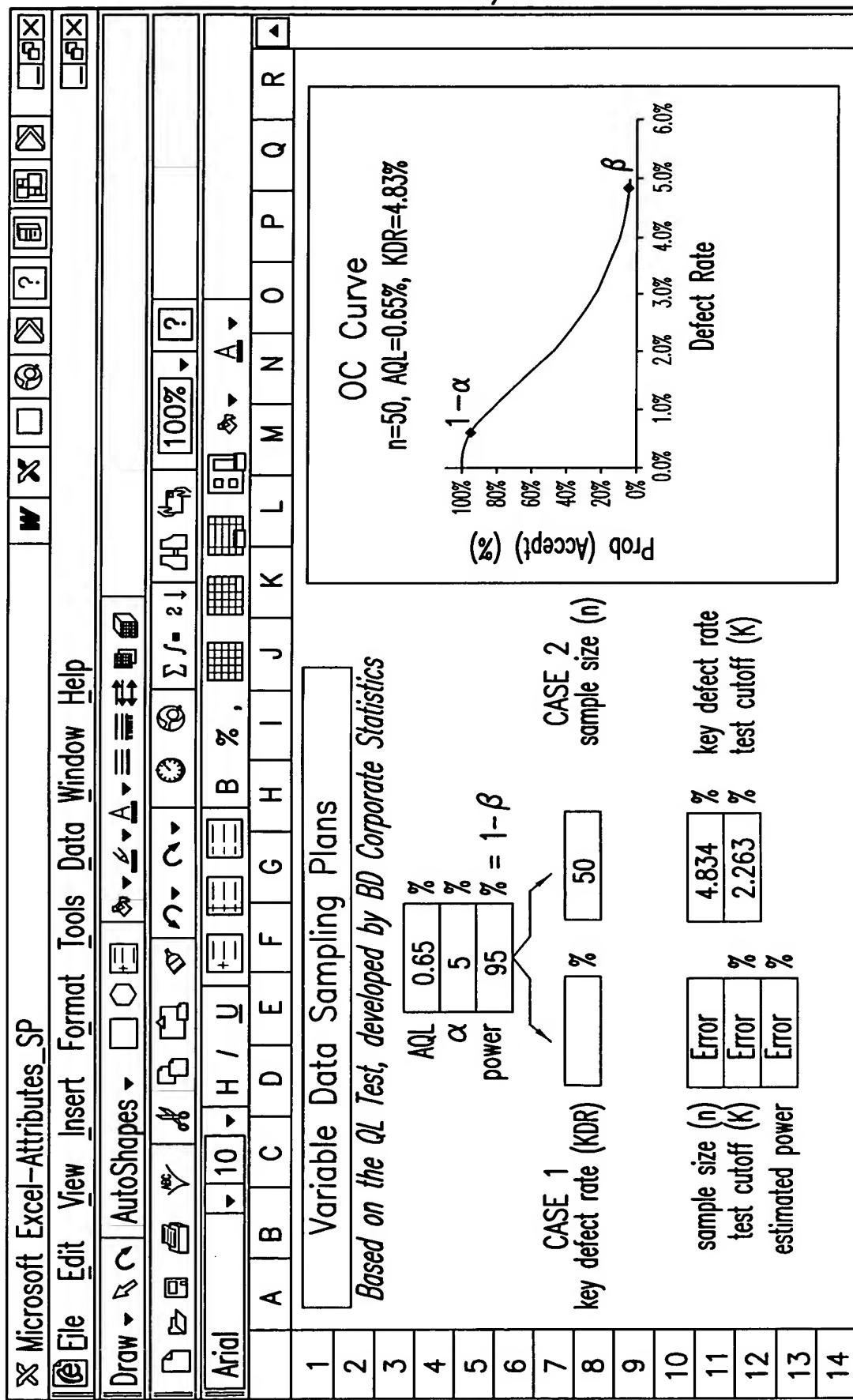


FIG. 15A

FIG. 15A

FIG. 15B

15

16 Plot Controls

17 OC % AOQ Curves

18

19 max Rate 

5
2

 % (1 or 2)

20 CASE

21

22

23 Constraints:

24 1) AQL & KDR do not exceed 15%

25 2) Sample Size does not exceed 2500

26

27

28

29 Press Ctrl 0 to copy graphs

30

31

32

33

Sampling Plan /

Ready

AOQ Curve  
n=50, AQL=0.65%, KDR=4.83%

Outgoing Defect (%)

Defect Rate

FIG. 15B

FIG. 16A

FIG. 16A

FIG. 16B

15

16 Plot Controls

17 QC % AOQ Curves

18

19 max Rate 

5	%
1	CASE

 (1 of 2)

20

21

22

23 Constraints:

24 1) AQL & KDR do not exceed 15%

25 2) Sample Size does not exceed 2500

26

27

28

29 Press Ctrl 0 to copy graphs

30

31

32

33

Sampling Plan /

Ready

AOQ Curve  
n=174, AQL=1%, KDR=3%

Outgoing Defect (%)

Defect Rate

FIG. 16B

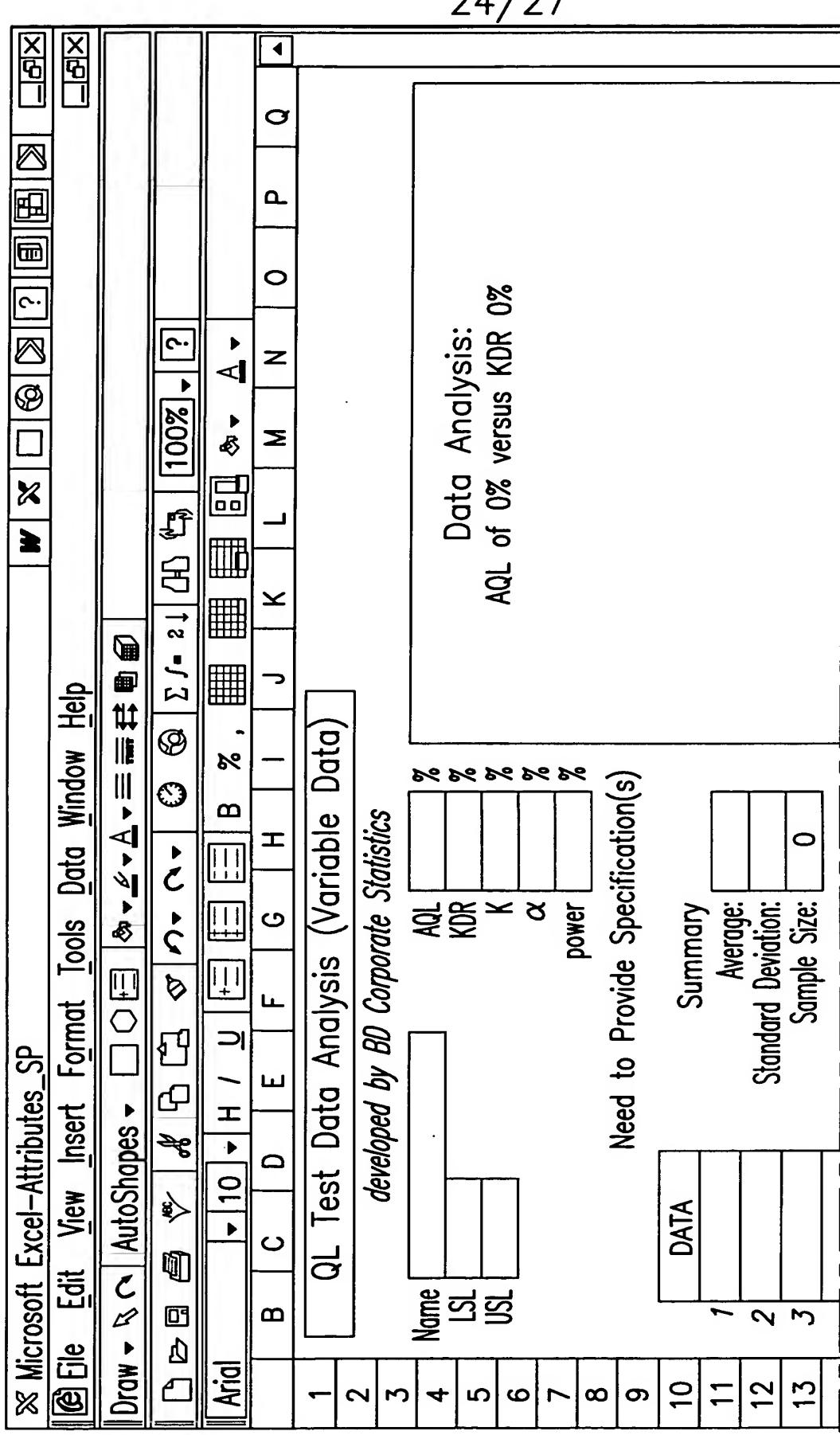


FIG. 17A

FIG. 17B

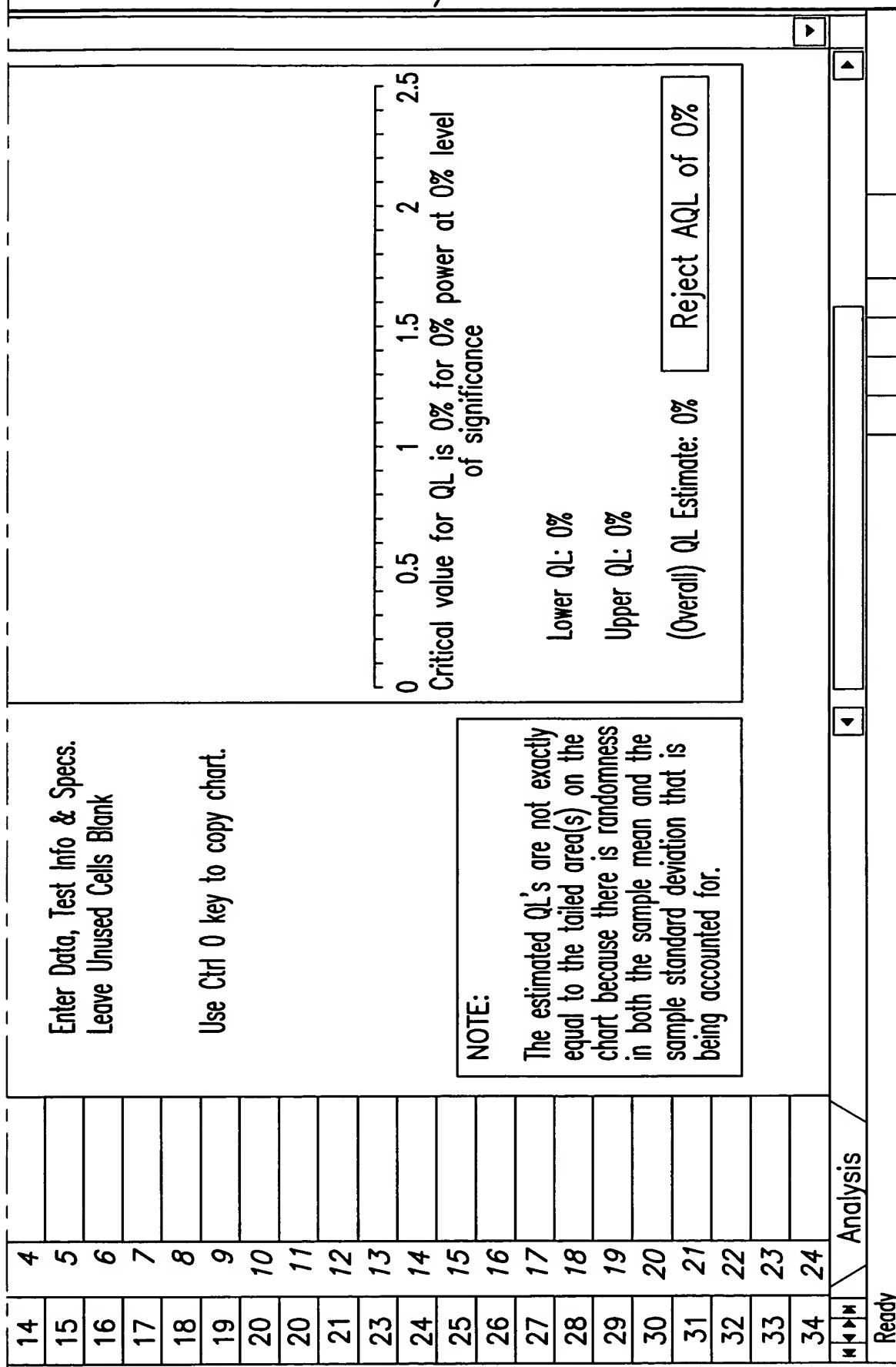


FIG. 17B

Microsoft Excel-Attributes_SP													
File	Edit	View	Insert	Format	Tools	Data	Window	Help	W	X	□	○	?
Draw	AutoShapes	AutoShapes	AutoShapes	AutoShapes	AutoShapes	AutoShapes	AutoShapes	AutoShapes	W	X	□	○	?
Font	Font	Font	Font	Font	Font	Font	Font	Font	Font	Font	Font	Font	Font
Arial	10	H	I	U	+	≡	%	,	100%	?	100%	?	100%
B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	QL	Test	Data	Analysis	(Variable	Data)							
2	Developed by BD Corporate Statistics												
3	Name	Separation Force	AQL	1	%								
4	LSL	8	KDR	3	%								
5	USL		K	1.86	%								
6			α	5	%								
7			power	95	%								
8	Left Tailed Specifications Test												
9	Summary												
10	Average: 12.9469												
11	1	14.8172	Standard Deviation:	2.0411									
12	2	10.5671	Sample Size:	174									
13	3	11.4874											

FIG. 18A

FIG. 18B

FIG. 18A

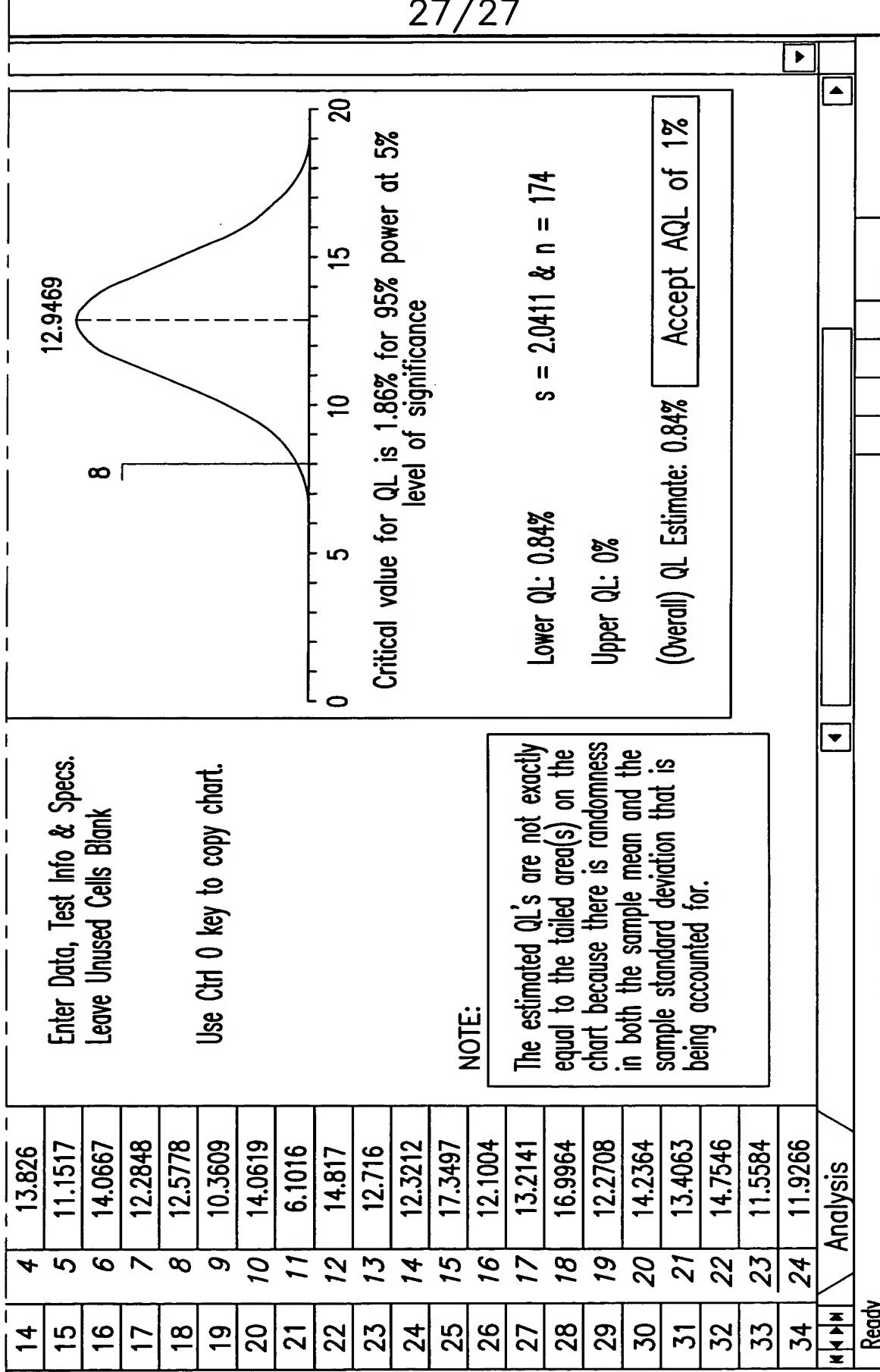


FIG. 18B